ANNUAL INDEX

VOLUME 50
1973

AUTHORS

A

Ackman, R. G. See P. J. Ke
—— P. J. Ke and P. M. Jangaard. Fractional vacuum distillation of herring oil methyl esters, 1
Adams, A. B., Jr. Air and water pollution control in crude tall oil manufacture in the pulp and paper industry, 498
Aftergood, L. See R. B. Alfin-Slater
Akiya, T. See S. Watanabe
Albright, Lyle F. Application of partial hydrogenation theory to the design of commercial reactors for hydrogenating triglyceride oils, 255
Alfin-Slater, R. B., P. Wells, L. Aftergood and D. Melnick. Dietary fat composition and tocopherol requirement: IV. Safety of polyunsaturated fats, 479
—— P. Wells, L. Aftergood and D. Melnick. Safety of nuts heat-processed in molten hexitols, 348
Ambye, Edith L. See John P. Viccaro
Arakawa, A. See M. Takehara
Awl, R. A. See W. E. Neff
Azeemoddin, G.. S. D. Thirumala Rao and B. R. Reddy. Short communication re a modified acetic anhydride sulphuric acid color test for oils, 545

B

Babulak, S. W. and L. Gildenberg. Automated determination of silicate and carbonates in detergents, 296
Badings, H. T. Letter to the editor re fishy off-flavors in autoxidized oils, 334
Bailey, A. V. See D. Mitcham
Baker, E. C. and G. C. Mustakas. Heat inactivation of trypsin inhibitor, lipoxygenase and urease in soybeans: Effect of acid and base additives, 137
Barnes, P. C., Jr. See B. R. Blankenship
Barr, P. A. See T. A. Foglia
Baur. F. J. Analytical methodology for emulsifiers used in fatty foods: A review, 85
Beal, R. E. See K. J. Moulton
—— L. T. Black, E. L. Griffin, J. C. Meng and G. S. Farmer. Water-recycle washing of refined soybean oil: Plant scale evaluation, 260
Becker, K. W. Removal of particulate matter from air by various pollution abatement systems, 504
Bell, A. A. See R. D. Stipanovic
Bell, J. T. See John D. McKinney
Bistline, R. G., Jr., W. R. Noble and W. M. Linfield. Mixed sulfated tallow alkanolamides as lime soap dispersing agents, 294
Bitman, Joel, L. P. Dryden, H. K. Goering, T. R. Wrenn, R. A. Yoncoskie and L. F. Edmondson. Efficiency of transfer of polyunsaturated fats into milk, 93
Bitner, E. D., J. O. Ernst and H. J. Dutton. Computer monitoring of a mini-refinery, 436
Black, L. T. See R. E. Beal
Blankenship, B. R., C. E. Holaday, P. C. Barnes, Jr. and J. L. Pearson. Comparison of oxygen bomb method to other methods for measuring oxidative stability of peanuts and peanut products, 377
Bleffert, George W. See Arthur E. Waltking
Bluestein, C., W. Rosenblatt, J. R. Clark and A. Stefcik. Amphoteric surfactants from mixed N-alkylethylenediamine, 532
Bodo, V. See F. W. Hougen
Braddock, R. J. and L. R. Dugan, Jr. Reaction of autoxidizing linoleate with coho salmon myosin, 343
Bress, D. F. See S. Ouchi
Brickman, Lawrence. See Arthur E. Waltking
Brown, David F., Vincent J. Senn, F. G. Dollear and L. A. Goldblatt. Concentrations of some aliphatic aldehydes and ketones found in raw and roasted Spanish and runner peanuts, 16
Brown, L. E. See T. J. Jacks
Burdick, D. See W. H. Morrison, III
—— See J. A. Robertson
Burnett, B. B. See W. C. Harris
Butterfield, R. O. See S. Koritala

C

Carpenter, D. L. and H. T. Slover. Lipid composition of selected margarines, 372
Cavanagh, George C. See John D. McKinney
Chals, M. and R. Perron. Hyperchlorinated fatty acids: II. Photochlorination of stearic acid in carbon tetrachloride, reaction study, 278
Chang, Stephen S. See M. M. Paulose
Chick, Marshall. See Arthur E. Waltking
Chopra, B. K. See A. C. Joshi
Ciesielski, L. F. Tall oil refinery waste water treatment systems, 494
Clark, J. R. See C. Bluestein
Clegg, A. J. Composition and related nutritional and organoleptic aspects of palm oil, 321
Clements, A. H., R. H. Van den Engh, D. J. Frost, K. Hoogenhout and J. R. Nooi. Participation of singlet oxygen in photosensitized oxidation of 1,4-dienoic systems and photooxidation of soybean oil, 325
Collins, L. C. See A. C. Joshi
Cowan, J. C. See W. J. Dejarlais
—— See C. D. Evans
—— See T. H. Khoe
—— See W. E. Neff
—— S. Koritala, K. Warner, G. R. List, K. J. Moulton and C. D. Evans. Copper-hydrogenated soybean and linseed oils: Composition, organoleptic quality and oxidative stability, 132
Craig, B. M., T. M. Mallard, R. E. Wight, G. N. Irvine and J. R. Reynolds. Influence of genetics, environment and admixtures on low erucic acid rapeseed in Canada, 395
Cross, C. K. and A. C. MacKay. Analysis of alkyl ethoxylates by NMR, 249
Crowell, E. P. See W. C. Harris

D

Dahlgren, R. R. See D. T. Hopkins
Davis, D. See D. T. Hopkins
Dejarlais, W. J., L. E. Gast and J. C. Cowan. Conjugation of polyunsaturated fats with dimsylsodium, 108
Dixit, V. K. See R. E. Rao
Doctor, V. M. See A. C. Joshi
Dollear, F. G. See David F. Brown
Dougherty, K. A. See O. S. Privett
Downey, R. K. See A. J. Finlayson
Dryden, L. P. See Joel Bitman
Duchesne, Y. P. See J. Hrivnak
Dugan, L. R., Jr. See R. J. Braddock
Dupuy, H. P. See D. T. Hopkins
—— S. P. Fore and L. A. Goldblatt. Direct gas chromatographic examination of volatiles in salad oils and shortenings, 340
Dutta, J. See M. Hoque
Dutton, H. J. See E. D. Bitner
—— See Sambasivarao Koritala

E

Edmondson, L. F. See Joel Bitman
Eliopoulos, G. See P. J. Mavrikos
Ellerbe, R. W. Tall oil soap skimming—the state of the art, 501
Erdahl, W. L. See O. S. Privett
—— A. Stolyhwo and O. S. Privett. Analysis of soybean lecithin by thin layer and analytical liquid chromatography, 513
Eriksson, C. E. and K. Vallentin. Thermal activation of peroxidase as a lipid oxidation catalyst, 264
Ernst, J. O. See E. D. Bitner
Evans, C. D. See J. C. Cowan
—— See G. R. List
—— G. R. List, Helen A. Moser and J. C. Cowan. Long term storage of soybean and cottonseed salad oils, 218
Evans, W. J. See Vernon L. Frampton

F

Farmer, G. S. See R. E. Beal
Fernandez-Martin, F. Short communication re thermal analysis of 1,2-epoxypropyl esters of normal fatty acids, 170
Feuge, R. O., Betty B. Gajee and N. V. Lovegren. Cocoa butter-like fats from fractionated cottonseed oil: I. Preparation, 50
—— See N. V. Lovegren
Fick, G. N. See D. C. Zimmerman
—— and D. C. Zimmerman. Variability in oil content among heads and seeds within heads of sunflowers (*Helianthus annuus* L.), 529
Finlayson, A. J., J. Krzymanski and R. K. Downey. Comparison of chemical and agronomic characteristics of two *Brassica napus* L. cultivars, Bronowski and Target, 407
Fogerty, Rosemary. See Arthur E. Waltking
Foglia, T. A., P. A. Barr and I. Schmeltz. Epimino derivatives from β-iodoazides, 290
—— L. M. Gregory, P. A. Barr and G. Maerker. Preparation of substituted 5,6-dihydro-4H-1,3-oxazines from olefins, 9
Fore, S. P. See H. P. Dupuy
Frampton, Vernon L., W. J. Evans and J. C. Kuck. Letter to the editor re loss of HBr in toluene solutions: A kinetic study, 173
—— and J. C. Kuck. Sources of error in determination of available lysine in cottonseed and peanut meals, 304
Frankel, E. N. See T. H. Khoe
—— and F. L. Thomas. Catalytic carboxylation of fats. Carboxy acids and esters from monounsaturates, 39
Freeman, I. P., F. B. Padley and W. L. Sheppard. Use of silicones in frying oils, 101
Friedrich, J. P. See G. R. List
—— G. R. List and V. E. Sohns. Hydroformylation of methyl oleate with a recycled rhodium catalyst and estimated costs for a batch process, 455
Fronczak, E. T. See M. E. Ginn
Frost, D. J. See A. H. Clements

G

Gajee, Betty B. See R. O. Feuge
—— See N. V. Lovegren
Garrett, V. H. See C. K. Lyon
Gast, L. E. See W. J. Dejarlais
—— See A. W. Schwab
Ghosh, Amitabha. See M. Hoque
Gildenberg, L. See S. W. Babulak
Ginn, M. E. and E. T. Fronczak. Variables in powdering of floor finishes, 392
Goering, H. K. See Joel Bitman
Goldblatt, L. A. See David F. Brown
—— See H. P. Dupuy
Gray, M. S. See N. V. Lovegren
Gregory, L. M. See T. A. Foglia
Griffin, E. L. See R. E. Beal
—— See K. J. Moulton
Gunetileke, K. G. See R. Hoover

H

Hadziyev, D. See M. Haydar
Hammons, R. O. See C. T. Young
Hampson, J. W. See F. E. Luddy
Harris, W. C., E. P. Crowell and B. B. Burnett. Quantitative analysis of polymerized fatty acids using gel permeation chromatography, 537
Hartman, Leopold and Regina C. A. Lago. Short communication re further observations concerning effects of unsaponifiable constituents on the properties of coffee seed oil, 99
Hayano, S. See S. Watanabe
Haydar, M. and D. Hadziyev. Short communication re electron spin resonance of free radicals formed in irradiated fatty acid methyl esters, 171
Hensarling, T. P. See T. J. Jacks
Herb, S. F. See F. E. Luddy
Holaday, C. E. See B. R. Blankenship
Hoogenhout, K. See A. H. Clements
Hoover, R., S. F. Laurentius and K. G. Gunetileke. Spoilage of coconut oil purification and properties of a fungal lipase that attacks coconut oil, 64
Hopkins, D. T., R. R. Dahlgren, D. Davis, A. W. Munson and H. P. Dupuy. Biological studies with cyclopropenoids inactivated with fatty acids, 381
Hoque, M., Amitabha Ghosh and J. Dutta. Short communication re use of argentation column chromatography in the identification of fish oil fatty acids by GLC; Application to cod liver oil, 29
Hougen, F. W. and V. Bodo. Extraction and methanolysis of oil from whole or crushed rapeseed for fatty acid analysis, 230
Hoversland, A. S. See John D. McKinney
Howell, C. R. See R. D. Stipanovic
Hrivnak, J., L. Sojak, J. Krupcik and Y. P. Duchesne. Effect of temperature on the separation of some Δ9-*cis-trans* isomers of methyl esters of fatty acids by open tubular gas chromatography, 68
Hsieh, A. See E. G. Perkins

I

Irvine, G. N. See B. M. Craig
Itoh, Toshiro, Toshitake Tamura and Taro Matsumoto. Methylsterol compositions of 19 vegetable oils, 300, errata, 427
—— T. Tamura and T. Matsumoto. Sterol composition of 19 vegetable oils, 122
Iwaoka, Wayne T. See Edward G. Perkins

J

Jacks, T. J., T. P. Hensarling, L. Y. Yatsu and L. E. Brown. Extraction of lipids from cottonseed tissue: III. Cyclopropenoid fatty acids from glanded and glandless seed, 72
Jangaard, P. M. See R. G. Ackman
Jellum, M. D. See D. L. Thompson
Jensen, Robert G. Composition of bovine milk lipids, 186
Johansson, Lars. See Reinhard Marcuse
Joshi, A. C., B. K. Chopra, L. C. Collins and V. M. Doctor. Distribution of fatty acids during germination of soybean seeds, 282
Joye, N. M., Jr., A. T. Proveaux and R. V. Lawrence. Composition of neutral oils from rosin, 104
Jungermann, E. Advances in bar soap technology, 475

K

Kame, Masaharu, Hideyuki Koda, Akihiro Kato and Toshio Koma. Detergency and mechanism of soil removal in detergent-enzyme system, 464
Katayama, A. See S. Ouchi
Kato, Akihiro. See Masaharu Kame
Ke, P. J. See R. G. Ackman
—— and R. G. Ackman. Bunsen coefficient for oxygen in marine oils at various temperatures determined by an exponential dilution method with a polarographic oxygen electrode, 429
Khoe, T. H., F. Otey, E. N. Frankel and J. C. Cowan. Polyurethane foams from hydroxymethylated fatty diethanolamides, 331
Khuddus, M. A., Y. Usui and D. Swern. Improved preparation of 9,10,12,13-tetrahydroxystearic acids from *anti-cis,cis*-9,10,12,13-diepoxystearic acid, 524
Kleiman, R. and G. F. Spencer. Gas chromatography mass spectrometry of methyl esters of unsaturated oxygenated fatty acids, 31
Koda, Hideyuki. See Masaharu Kame
Koma, Toshio. See Masaharu Kame
Komori, Saburo. See Mitsuo Okahara
Koritala, Sambasivarao. Hydrogenation of alkali-conjugated linoleate: Isomeric monoene profiles obtained with nickel, palladium and platinum catalysts, 110
—— See J. C. Cowan
—— R. O. Butterfield and H. J. Dutton. Kinetics of hydrogenation of conjugated triene and diene with nickel, palladium, platinum and copper-chromite catalysts, 317
—— and H. J. Dutton. Deuteration of methyl *cis*-9, *cis*-15-octadecadienoate with nickel catalyst, 307
—— C. R. Scholfield, E. Selke and H. J. Dutton. Hydrogenation and deuteration of conjugated isomers of linoleate and linolenate with palladium, platinum, nickel and lindlar catalysts, 11
—— E. Selke and H. J. Dutton. Deuteration of methyl linoleate with nickel, palladium, platinum and copper-chromite catalysts, 310
Krupcik, J. See J. Hrivnak
Krzymanski, J. See A. J. Finlayson
Kuck, J. C. See V. L. Frampton
Kuksis, A., L. Marai and J. J. Myher. Triglyceride structure of milk fats, 193
Kuwamura, H. See S. Watanabe
Kwolek, W. F. See G. R. List

L

Lago, Regina C. A. See Leopold Hartman
Laurentius, S. F. See R. Hoover
Lawrence, R. V. See N. M. Joye, Jr.
Lien, Y. C. and W. W. Nawar. Thermal decomposition of tricaproin, 76
Linfield, W. M. See R. G. Bistline, Jr.
—— See N. Parris
List, G. R. See J. C. Cowan
—— See C. D. Evans
—— See J. P. Friedrich
—— J. P. Friedrich, W. F. Kwolek and C. D. Evans. Determination of rhodium on commercial carbon- and alumina-supported catalysts, 210
Lovegren, N. V. See R. O. Feuge
—— B. B. Gajee, M. S. Gray and R. O. Feuge. Cocoa butter-like fats from fractionated cottonseed oil: II. Properties, 53
—— M. S. Gray and R. O. Feuge. Sharp-melting fat fractions from cottonseed oil, 129
Luddy, F. E., J. W. Hampson, S. F. Herb and H. L. Rothbart. Development of edible tallow fractions for specialty fat uses, 240
Lunde, Gulbrand. The analysis of organically bound elements (As, Se, Br) and phosphorus in raw, refined, bleached and hydrogenated marine oils produced from fish of different quality, 26
—— The presence of volatile, nonpolar bromo organic compounds synthesized by marine organisms, 24
Lyon, C. K. and V. H. Garrett. New castor oil-based urethane elastomers, 112

Mc

McAnsh, J. Place of rapeseed in the edible oil market, 404
McGregor, D. I. See G. Rakow
McGuire, T. A. See C. A. Wilham
McKinney, John D., George C. Cavanagh, J. T. Bell, A. S. Hoversland, D. M. Nelson, J. Pearson and R. J. Selkirk. Effects of ammoniation on aflatoxins in rations fed lactating cows, 79

M

MacKay, A. C. See C. K. Cross
Mackenzie, S. L. Cultivar differences in proteins of oriental mustard (*Brassica juncea* [L.] Coss.), 411
Maerker, G. See T. A. Foglia
Mag, T. K. Clay-heat refining of edible oils, 251
Magne, Frank C. See Robert R. Mod
Mallard, T. M. See B. M. Craig
Marai, L. See A. Kuksis
Marcuse, Reinhard and Lars Johansson. Studies on the TBA test for rancidity grading: II. TBA reactivity of different aldehyde classes, 387
Matsumoto, Taro. See Toshiro Itoh
Mavrikos, P. J. and G. Eliopoulos. Letter to the editor re preparation of methyl esters of long chain fatty acids, 174
Mehltretter, C. L. See C. A. Wilham
—— and C. A. Wilham. Short communication re ethoxylated glycerol and propylene glycol glycoside palmitates from lactose, 425
Melnick, D. See R. B. Alfin-Slater
Meng, J. C. See R. E. Beal
Mertens, W. G. Fat melting point determinations: A review, 115
Mimura, K. See S. Watanabe
Mitcham, D., A. V. Bailey and V. W. Tripp. Identification of fatty acid polymorphic modifications by infrared spectroscopy, 446
Mod, Robert R., Frank C. Magne and Evald L. Skau. Short communication re preparation and properties of oxalic acid salts of C_{18} saturated and unsaturated fatty amides, 126
Mohiuddin, M. M. and H. R. Zaidi. Spot and color tests for detection of *Argemone mexicana* seed oil, 543
Moriyuki, H. See M. Takehara
Morrison, W. H., III. See J. A. Robertson
—— J. A. Robertson and D. Burdick. Effect of deep-fat frying on sunflower oils, 440
Moser, Helen A. See C. D. Evans
Moulton, K. J. See J. C. Cowan
—— R. E. Beal and E. L. Griffin. Hydrogenation of soybean oil with copper catalysts containing small amounts of nickel catalysts, 450
Munson, A. W. See D. T. Hopkins
Mustakas, G. C. See E. C. Baker
Myher, J. J. See A. Kuksis

N

Nagai, T. See H. Seino
—— See S. Watanabe
Nakasato, S. See S. Watanabe
Nawar, W. W. See Y. C. Lien
Neff, W. E., R. A. Awl, E. H. Pryde and J. C. Cowan. Poly(amide-acetals) and poly(ester-acetals) from 9(10)-formylstearic acid as stationary phases for gas chromatography, 235
Negishi, M. See S. Watanabe
Nelson, D. M. See John D. McKinney
Nelson, R. M. Titrimetric determination of soap in refined vegetable oils, 207
Nihongi, T. See H. Seino
Nishimura, Fujio. See Mitsuo Okahara
Noble, W. R. See R. G. Bistline, Jr.
Nool, J. R. See A. H. Clements
Norris, Karl H. See James Velasco

O

Ohashi, Takehisa. See Mitsuo Okahara
Ohashi, Yoko. See Mitsuo Okahara
Okahara, Mitsuo, Yoko Ohashi, Fujio Nishimura, Takehisa Ohashi and Saburo Komori. Synthesis of cationic surfactants with alkenyl group, 59
Ouchi, S., A. Katayama and D. F. Bress. Recycle of tall oil plant waste water effluent, 507
Otey, F. See T. H. Khoe
—— See C. A. Wilham

P

Padley, F. B. See I. P. Freeman
Parris, N., J. K. Weil and W. M. Linfield. Soap based detergent formulations. V. Amphoteric lime soap dispersing agents, 509
Patton, Stuart. Origin of the milk fat globule, 178
Paulose, M. M. and Stephen S. Chang. Chemical reactions involved in deep fat frying of foods: VI. Characterization of nonvolatile decomposition products of trilinolein, 147
Pearson, J. L. See B. R. Blankenship
—— See John D. McKinney
Perkins, Edward G. and Wayne T. Iwaoka. Purification of cyclic fatty acid esters: A GC-MS study, 44
—— R. Taubold and A. Hsieh. Short communication re gel permeation chromatography of heated fats, 223
—— and L. R. Wantland. Characterization of nonvolatile compounds formed during thermal oxidation of 1-linoleyl-2,3-distearin III. Evidence for presence of dimeric fatty acids, 459
Perron, R. See M. Chals
Petrowski, Gary E. and John R. Vanatta. Gas chromatographic determination of hydrophile-lipophile balance of nonionic emulsifiers, 284
Phipps, A. M. Liquid-liquid extraction of BHT from vegetable oils, 21
Privett, O. S. See W. L. Erdahl
—— K. A. Dougherty, W. L. Erdahl and A. Stolyhwo. Studies on the lipid composition of developing soybeans, 516
Proveaux, A. T. See N. M. Joye, Jr.
Pryde, E. H. See W. E. Neff

R

Rakow, G. and D. I. McGregor. Opportunities and problems in modification of levels of rapeseed C_{18} unsaturated fatty acids, 400
Rao, R. E., V. K. Dixit and K. C. Varma. Studies on fixed oil of seeds of *Sida acuta* burm, 168
Rao, S. D. Thirumala. See G. Azeemoddin
Reddy, B. R. See G. Azeemoddin
Reynolds, J. R. See B. M. Craig
Robertson, J. A. See W. H. Morrison, III
—— W. H. Morrison, III and D. Burdick. Chemical evaluation of oil from field- and storage-damaged soybeans, 443
Rohwedder, W. K. See A. W. Schwab
Rosenblatt, W. See C. Bluestein
Rothbart, H. L. See F. E. Luddy
Russell, J. R. See L. S. Silbert

S

Saito, Shuji and Takumi Taniguchi. Precipitation of nonionic surfactants by polymeric acid, 276
Sasamoto, Y. See S. Watanabe
Schmeltz, I. See T. A. Foglia
Scholfield, C. R. See Sambasivarao Koritala
Schwab, A. W. Catalytic autoxidation of 9(10)-formylstearic acid, 74
—— W. K. Rohwedder, L. W. Tjarks and L. E. Gast. Hydrogen sulfide adducts of methyl oleate and linoleate, 364
Seino, H. See S. Watanabe
—— S. Watanabe, T. Nihongi and T. Nagai. Influences of operating conditions on determination of fatty acid methyl esters by gas chromatography, 335
Selke, E. See Sambasivarao Koritala
Selkirk, R. J. See John D. McKinney
Senn, Vincent J. See David F. Brown
Sheppard, W. L. See I. P. Freeman
Shiraishi, S. See S. Watanabe
Showell, J. S. See L. S. Silbert
Silbert, L. S., J. R. Russell and J. S. Showell. Thiocyanations: I. Elucidation of olefin thiocyanations: Product distribution, mechanism and a rationale of thiocyanogen value, 415
Singh, J. and M. G. Sood. Component fatty acids of *Aspergillus terreus* fat, 485
Sink, J. D. Lipid-soluble components of meat flavors/odors and their biochemical origin, 470
Skau, Evald L. Average increase in chain length of crystalline long chain compounds per carbon atom, 245
—— See Robert R. Mod
Slover, H. T. See D. L. Carpenter
Smith, Lloyd M. Introduction to the symposium on milk lipids, 175
Sohns, V. E. See J. P. Friedrich
Sojak, L. See J. Hrivnak
Sood, M. G. See J. Singh
Spencer, G. F. See R. Kleiman

—— and W. H. Tallent. Sperm whale oil analysis by gas chromatography and mass spectrometry, 202
Stefcik, A. See C. Bluestein
Stipanovic, R. D., A. A. Bell and C. R. Howell. Spectral identification of the ketol tautomer of gossypol, 462
Stolyhwo, A. See W. L. Erdahl
—— See O. S. Privett
Sturm, R. N. Biodegradability of nonionic surfactants: Screening test for predicting rate and ultimate biodegradation, 159
Swern, D. See M. A. Khuddus
—— See John P. Wineburg

T

Takehara, M., H. Moriyuki, A. Arakawa, I. Yoshimura and R. Yoshida. Surface active N-acylglutamate: III. Physicochemical properties of sodium long chain N-acylglutamates, 227
Tallent, W. H. See G. F. Spencer
Tamura, Toshitake. See Toshiro Itoh
Taniguchi, Takumi. See Shuji Saito
Taubold, R. See E. G. Perkins
Thomas, F. L. See E. N. Frankel
Thompson, D. L., M. D. Jellum and C. T. Young. Effect of controlled temperature environments on oil content and on fatty acid composition of corn oil, 540
Tjarks, L. W. See A. W. Schwab
Tripp, V. W. See D. Mitcham
Tulloch, A. P. Comparison of some commercial waxes by gas liquid chromatography, 367
—— Factors affecting analytical values of beeswax and detection of adulteration, 269

U

Usui, Y. See M. A. Khuddus

—— See S. Watanabe

V

Vallentin, K. See C. E. Eriksson
Vanatta, John R. See Gary E. Petrowski
Van den Bosch, G. Bleaching of vegetable oils: I. Conversions in soybean oil, triolein and trilinolein, 421
—— Bleaching of vegetable oils, II. Conversions of methyl oleate and linoleate, 487
Van den Engh, R. H. See A. H. Clements
Varma, K. C. See R. E. Rao
Velasco, James and Karl H. Norris. Short communication re investigation of instrumental measurements to determine aflatoxin in florisil columns, 385
—— and Marion E. Whitten. Evaluation of florisil tubes in detection of aflatoxin, 120
Viecaro, John P. and Edith L. Ambye. Colorimetric assay for carboxymethyloxysuccinate, a new detergent builder, 213

W

Waller, G. R. See C. T. Young
Waltking, Arthur E., George W. Bleffert, Lawrence Brickman and Phillip R. Wells. Analytical critique of hexitols used as a cooking medium, 353
—— George W. Bleffert, Marshall Chick and Rosemary Fogerty. Short communication re a new benzene-ethanol-water solvent system for TLC separation of aflatoxins, 424
Wantland, L. R. See E. G. Perkins
Warner, K. See J. C. Cowan
Watanabe, S. See H. Seino
—— S. Hayano, T. Akiya, K. Mimura, S. Nakasato, H. Seino and Y. Usui. Determination of fatty acid composition by gas chromatography: I. Analysis with use of thermal conductivity detector, 357
—— S. Nakasato, S. Hayano, H. Kuwamura, T. Nagai, M. Negishi, Y. Sasamoto, H. Seino and S. Shiraishi. Determination of fatty acid composition by gas chromatography: II. Analysis with use of flame ionization detector, 360
Weil, J. K. See N. Parris
Wells, P. See R. B. Alfin-Slater
—— See Arthur E. Waltking
Whitten, Marion E. See James Velasco
Willham, C. A. See C. L. Mehltretter
—— T. A. McGuire, C. L. Mehltretter and F. H. Otey. Surfactants from fatty esters of polyalkoxylated, 155
Wight, R. E. See B. M. Craig
Wineburg, John P. and Daniel Swern. NMR chemical shift reagents in structural determination of lipid derivatives: III. Methyl ricinoleate and methyl 12-hydroxystearate, 142
Wrenn, T. R. See Joel Bitman

X—Y—Z

Yatsu, L. Y. See T. J. Jacks
Yoncoskie, R. A. See Joel Bitman
Yoshida, R. See M. Takehara
Yoshimura, I. See M. Takehara
Young, C. T. See D. L. Thompson
—— G. R. Waller and R. O. Hammons. Variations in total amino acid content of peanut meal, 521
Zaidi, H. R. See M. M. Mohiuddin
Zimmerman, D. C. See G. N. Fick
—— and G. N. Fick. Fatty acid composition of sunflower (*Helianthus annus* L.) oils as influenced by seed position, 273

NEWS

A

Agricultural Research Institute, report of April meeting, 234A
AOCS Annual Reports, to be in JAOCS, 109A
AOCS 1972 Committee Reports, 334A
AOCS Honored Students, honored at New Orleans meeting, 186A
American Chemical Society, dedicates addition to Chemical Abstracts headquarters, 291A
Association of Official Analytical Chemists, invites nominations for '73 awards, 55A
Award in Lipid Chemistry, call for nominations, 23A, 54A, 112A, 496A, 538A
—— F. D. Gunstone winner, 405A
Award of Merit, call for nominations, 18A, 535A

B

Baldwin, A. R., honored by ACS Minnesota Section, 12A
Bartholomew, David M. Future supply of fats and oils of the international market, 368A
Beal, R. E., Book review—*Physical refining of oils and fats,* by G. B. Martinenghi, 534A
Berger, Ralph W. See Arnold M. Gavin
Book Review—*Advances in Steroid Chemistry and Pharmacology,* edited by M. H. Briggs and G. A. Christie, 192A
—— *Allyl Compounds and Their Polymers,* by C. E. Schildknecht, 533A
—— *Analysis of Triglycerides,* by C. Litchfield, 533A
—— *Blood Lipids and Lipoproteins: Quantitation, Composition and Metabolism,* edited by Gary J. Nelson, 192A
—— *Cosmetics: Science and Technology,* Vol. 1 and 2, edited by M. S. Balsam and E. Sagarin, 54A
—— *Ether Lipids: Chemistry and Biology,* edited by F. Snyder, 193A
—— *Handbook of Chromatography,* Vol. I and II, edited by G. Zweig and J. Sherma, 233A
—— *Kosmetikum Feinseife: Abris seiner Technologie,* edited by D. Osteroth, 330A
—— *Marine Chemistry,* Vol. I, by Dean Martin, 7A
—— *Methods of Aflatoxin Analysis,* edited by B. D. Jones, 117A
—— *Molecular Mechanisms of Antibiotic Action on Protein Biosynthesis and Membranes,* edited by E. Munoz, F. Garcia-Ferrandiz and D. Vaquez, 233A
—— *Pharmacological Control of Lipid Metabolism,* edited by W. L. Holmes, R. Paoletti and D. Kritchevsky, 194A
—— *Physical Refining of Oils and Fats,* by G. B. Martinenghi, 534A
—— *Progress in the Chemistry of Fats and Other Lipids,* Vol. XIII., edited by R. T. Holman, 154A
—— *Tenside-Textilhilfsmittel-Waschrohstoffe,* Vol. III., edited by Kurt Lindner, 117A
—— *Topics in Lipid Chemistry,* Vol. 3, edited by F. D. Gunstone, 330A
Borgstrom, Georg. Future prospects of animal production of fats and protein, 171A
Bouveng, H. D. and G. Durig. Toxicological and ecological aspects of fluorescent whitening agents, 516A
Burr, George O., visits University of Minnesota, 225A

C

Cahn, Arno, Book review, *Tenside-Textilhilfsmittel-Waschrohstoffe* Vol. III., edited by Kurt Lindner, 117A
Cairns, R. W., joins staff at ACS, 118A
Center for Health Sciences, announced at Lehigh University, 176A
Chang, S. S., completes sojourn in South Korea, 332A
Codex alimentarius, standards for edible oils, 30A
Coleman, William, retires from Anderson Clayton, 14A
Committee of Scientific Society Presidents, holds first meeting, 333A
Cowan, J. C., J. J. Rackis and W. J. Wolf. Soybean protein flavor components: A review, 426A
—— retires, 332A
Crude glycerine production, figures for June, 454A

D

Dahlen, Josef A. H. Chlorophyll content monitoring of Swedish rapeseed and its significance in oil quality, 312A
deFigueiredo, Mario P., promoted at National Portion Control, Inc., 472A
Durig, G. See H. D. Bouveng

E

Eisner, Abner, ends career at Eastern, 377A
European Club of Centers for Lipid Research, report from France, 4A
—— report from Italy, 530A
—— report of Seville meeting, 376A
—— report from the Netherlands, 136A

F

Fontana, Alexander V., elected to hospital board, 380A
Four Corners, report from Belgium, 229A
—— report from Brazil, 229A, 518A
—— report from Canada, 518A
—— report from Chile, 106A, 521A
—— report from Czechoslovakia, 106A, 396A 106A, 396A
—— report from France, 229A
—— report from Germany, 107A 230A, 396A 230A, 396A
—— report from Hungary, 231A
—— report from India, 108A
—— report from Italy, 231A
—— report from Japan, 231A, 522A
—— report from Mexico, 232A
—— report from New Zealand, 522A
—— report from Poland, 108A
—— report from Spain, 396A, 524A
—— report from Turkey, 232A, 524A
Fungicide and Nematicide Tests, report available, 246A

G

Gavin, Arnold M. and Ralph W. Berger. Deodorizing system modification for heat recovery and steam refining of palm oil, 466A
Goldblatt, Leo, retires, 329A
Guide to Authors, manuscript preparation, 40A
Gunstone, F. D. Some physical, chemical and biological properties of natural and synthetic unsaturated C_{18} acids, 486A

H

Herrmann, Klaus M., Book review—*Molecular Mechanisms of Antibiotic Action on Protein Biosynthesis and Membranes,* edited by E. Munoz, F. Garcia-Ferrandez and D. Vaquez, 233A
Hlavacek, R. J., joins Best Foods, 177A
Hoffman, Y. Experiences in refining rapeseed oil by the Zenith process, 260A
Hoffmann-LaRoche, dedicates vitamin C plant, 49A
Honored Student Award, call for nominations, 22A, 404A, 445A, 483A
Horan, F. E., named president-elect of AACC, 444A
Houle, R. J., retires from Lever Bros., 199A
Hunter, Robert T., promoted by Amway, 118A

I

Instrumental Analysis Group, holds analytical methods meeting, 123A
International Committee for Surface-Active Agents, meeting in May, 333A

J

Jacobson, Glen A., fills new post on AOCS Membership Committee, 124A
Jenkins, James W., Book review—*Cosmetics: Science and Technology,* Vol. 1 and 2, edited by M. S. Balsam and E. Sagarin, 54A

Jungermann, Eric, Book review—*Kosmetikum Feinseife: Abris seiner Technologie,* edited by D. Osteroth, 330A
—— speaks at SCC meeting, 212A

K

Kaunitz, Hans, presented Philippine Presidential Medal of Merit, 516A
Kritchevsky, David, Book Review—*Advances in Steroid Chemistry and Pharmacology,* edited by M. H. Briggs and G. A. Christie, 192A

L

Laubscher, James, promoted at Woodson-Tenent, 497A
L.I.F.E., AOCS active in food education, 536A
Lipidforum, marked by rapid development, 378A
Lowry, George, joins staff of Mona Industries, 118A

M

Mahadevan, V., Book review—*Ether Lipids: Chemistry and Biology,* edited by F. Snyder, 193A
Marcuse, R., accepts Chevreul Medal, 276A
Meetings of AOCS, 1973, spring, New Orleans, call for papers, 24A
—— committee schedules, 104A
—— meeting plans, 8A
—— plans for meeting near completion, 48A
—— report of meeting, 268A
—— technical program, 73A
Meetings of AOCS, 1973, fall, Chicago, call for papers, 108A, 156A, 200A
—— chairmen announced, 228A
—— committee schedule, 324A
—— entertainment plans, 275A
—— exhibitors, 403A
—— report of meeting, 474A
—— technical program, 295A
Meetings of AOCS, 1974, spring, Mexico City, call for papers, 319A, 402A, 446A
—— plans announced, 392A
—— plans for post-meeting tours, 436A
—— program announced, 319A, 529A
—— travel plans, 491A

N

National Academy of Sciences, announces program to improve emergency medical communications, 212A
National Soybean Crop Improvement Council, announces winners of Soybean Efficiency Awards, 199A
Nishida, T., Book review—*Pharmacological Control of Lipid Metabolism,* edited by W. L. Holmes, R. Paoletti and D. Krtichevsky, 194A

O

Obituaries, Crump, George B., 535A
—— Day, E. A., 118A
—— Gayer, Frederick H., 540A
—— Hayashibe, Koji, 194A
—— Hosmer, Paul B., 12A
—— Kempf, Earl S., 12A
—— Markley, Klare S., 329A
—— McIsaac, David Bruce, 501A
—— Starr, Robert, 244A
—— Zech, John D., 244A
Officers of AOCS, 1973–74, candidates announced, 63A
—— officers announced for 1973–74, 190A
O'Haro, George, appointed president of Textron's Spencer Kellogg Div., 134A

P

PAG Guidelines, 279A
Pelick, Nicholas, Book review—*Blood Lipids and Lipoproteins: Quantitation, Composition and Metabolism,* edited by Gary J. Nelson, 192A
Perkins, E. G., Book review—*Progress in the Chemistry of Fats and Other Lipids,* Vol. XIII, edited by R. T. Holman, 154A
—— Book review—*Topics in Lipid Chemistry,* edited by F. D. Gunstone, 330A
Pons, Walter A., Jr., Book review—*Methods of Aflatoxin Analysis,* edited by B. D. Jones, 117A
—— earns Superior Service Award, 259A
President's Club, membership promotion, 53A, 100A, 132A, 184A, 226A, 254A, 328A, 382A, 441A, 483A

R

Rackis, J. J. See J. C. Cowan
Referee Chemists, announcement, 1973–74, 320A
—— notice, 21A, 123A
Rowan, Charles M., Jr., appointed product manager at Parkson Corp., 138A
Rutgers State University, dedicates Food Science building, 199A

S

Scholfield, C. R., Book Review—*Analysis of Triglycerides,* by C. Litchfield, 533A
Sections of AOCS, North Central Section, Bailey Award winner announced, 109A
—— September meeting report, 526A
Sections of AOCS, Northeast Section, April symposium, 235A
—— honors Ernest F. Drew, 163A
—— report of December, 1972, meeting, 50A
—— report of March meeting, 198A
—— report of June meeting, 331A
—— report of September meeting, 394A
—— student award information, 16A, 49A
—— symposium on palm oil and related fats, 102A
Sections of AOCS, Northern California Section, October symposium, 10A
—— officers announced, 49A
Short course, 1972, Portugal, report of course, 47A
Short course, 1973, Champaign, pictorial report, 323A
—— program announced, 20A
—— program, 58A
—— registration forms, 110A
—— registration information, 144A, 196A
Siebert, John M., promoted by Calgon, 204A
Sims, R. P. A., transferred to new post, 274A
Simulation Councils Proceedings, call for papers, 225A
Skau, Evald L., AIC lauds achievements, 322A
Smalley Check Sample Program, aflatoxin check samples, 445A
—— announce 1973–74 program, 152A, 199A, 240A
—— awards, 276A
Society of Flavor Chemists, elect new officers, 534A
Spiher, Alan T., Jr., the food additives amendment and fat and oil bearing foods, 45A
Stansby, Maurice E., Problems discouraging use of fish oil in American-manufactured shortening and margarine, 220A
Swern, Daniel, Book review, *Allyl Compounds and Their Polymers,* by C. E. Shildknecht, 533A
Synthetic Organic Chemical Manufacturers Association, announce competition for 1974 Gold Medal Award, 535A
Szuhaj, B. F., promoted at Central Soya, 472A

T

Temin, Howard, receives American Chemical Society award, 209A
Theobald, Harry, chosen NRA president, 6A

U

University of Illinois, Food Science Dept. offers extension program, 186A

V

VEST-I, professional placement service, 13A
Vix, Henry, concludes service at USDA, 406A

W

Walton, A., Book review—*Marine Chemistry,* Vol. I., by Dean F. Martin, 7A
Wolf, Thomas and John H. Callahan, Book review—*Handbook of Chromatography,* Vol. I and II, edited by G. Zweig and J. Sherma, 233A
Wolf, W. J. See J. C. Cowan
Wolff, J. P., accepts Chevreul Medal, 276A
World Soy Protein Conference, program and registration forms, 358A, 388A, 448A

SUBJECT

A

Acetic anhydride, color test for various oils, 545
Acetone, fractionation of edible tallow, 240
Acids, fatty, average chain length per carbon, 245
Activated earth, effect on heated oils, 487
—— effect on heated oleates and linoleates, 487
Acylated monoglycerides, anal, 85
N-Acylglutamate, surface active properties, 227
Aflatoxin M, in milk of cows fed aflatoxin contaminated cottonseed meal, 80
Aflatoxins, ammoniated in cattle feed, 79
—— detection in florisil tubes, 120
fluorometric dtmn on florisil columns, 385
—— new solvent system for TLC anal, 424
Air pollution, control in tall oil processing, 498
—— design of abatement systems, 504
Alcohol ethoxylates, biodegradability, 157
Alcohols, of natural waxes, 367
Alcohols, fatty, average chain length per carbon, 245
Aldehydes, as meat flavor components, 470
—— of roasted peanuts, 16
—— reactivity with thiobarbituric acid, 387
Alkali refining, computer monitoring, 436
—— water-recycle washing, 260
Alkanesulfonates, average chain length per carbon, 245
Alkanoic acids, average chain length per carbon, 245
Alkanolamides, of tallow, sulfated as lime soap dispersing agents, 294
Alkoxylated glycosides, fatty ester surfactants, 155
Alkoxysulfonium salts, prep and hydration, 524
Alkyl allyl chlorides, synthesis, 59
Alkyl ethoxylates, anal by NMR, 249
Alkylethylenediamine, amphoteric surfactants from, 532
Amides, from ricinoleic acid, 112
Amines, formation of amphoterics with 1,3-propanesultone, 509
Amines, tertiary, quaternization with alkenyl chlorides, 59
Amino acids, content in 16 peanut varieties, 521
Ammoniation, of aflatoxin contaminated cottonseed meal, 80
Amphoteric surfactants, from alkyl ethylenediamine, 532
Amphoterics, from amines and 1,3-propanesultone, 509
α-Amyrin, of 19 vegetable oils, 300
β-Amyrin, of 19 vegetable oils, 300
Analysis of food emulsifiers, review, 85
Animal fats, future world production prospects, 171A
—— world production, 368A
Animal protein, future world production prospects, 171A
Antioxidants, effect of silicones in frying oils, 101
—— extraction from vegetable oils, 21
Argemone mexicana oil, spot test, 543
Arsenic compounds, anal in marine oils, 26
Aspergillus flavus, lipase from, 64
Aspergillus terreus, fat content and comp, 485
Auricolic acid, GLC anal, 31
Autoxidation, of formylstearic acid, 74
Autoxidized oils, fishy flavors, 334
Δ^5-Avenasterol, content in nineteen vegetable oils, 122
Δ^7-Avenasterol, content in nineteen vegetable oils, 122
Aziridines, based on oleates and oleyl alcohol, 290

B

Baked goods, anal of emulsifiers in, 85
Beef, flavor characterization, 470
Beeswax, anal, chemical and GLC, 269
—— detection of adulteration, 269
BHT, extraction from vegetable oils, 21
Biodegradability, screening tests, 157
Biodegradation, of nonionic surfactants, 157
Black liquor, pollution control in processing to crude tall oil, 498
—— skimming in pulp mills, 501
Bleaching, of edible oils, 251
—— of vegetable oils, 421
Bleaching earth, effect on heated oleates and linoleates, 487
Brassica, plant breeding for low erucic rapeseed, 395
Brassica campestris, low erucic acid varieties, 395
Brassica juncea (oriental rapeseed), protein of, 411
Brassica napus, comparison of Bronowski and Target varieties, 407
—— low erucic acid varieties, 395
Brassicasterol, content in nineteen vegetable oils, 122
Bread, anal of emulsifiers in, 85
Bromine compounds, anal in marine oils, 26
—— in marine oils, 24
Bunsen coefficients, for oxygen in marine oils, 429
Butter globules, origin in milk, 178
Butterfat, symposium, 175

C

Cafestol, from coffee seed oil, 99
Cake, anal of emulsifiers in, 85

Cake mixes, anal of emulsifiers in, 85
Calorimetry, differential scanning of hexitols used for peanut roasting, 353
Campesterol, content in nineteen vegetable oils, 122
Candelilla wax, anal by GLC, 367
Candy, anal of emulsifiers in, 85
Carbonates, automated dtmn in detergents, 296
Carbonyl compounds, as meat flavor components, 470
Carboxylation, catalytic using palladium chloride and triphenylphosphine, 39
—— of unsaturated acids, 39
Carboxymethylsuccinate, assay for in detergents, 213
Carboxystearic acid, from oleic acid, 39
9(10)-Carboxystearic acid, by autoxidation of formylstearic acid, 74
Carnauba wax, anal by GLC, 367
Carotenoids, origin in milk fat, 178
Castor amides, urethane elastomers from, 112
Castor oil, methylsterol and triterpene alcohols of, 300
—— sterols of, 122
—— urethane elastomers from, 112
Catalysts, effect on hydrogenation theory, 255
—— in hydrogenation of conjugated fatty acids, 11
Cationic surfactants, with alkenyl group, synthesis, 59
—— with alkenyl group, properties, 59
Cattle, ammoniated aflatoxins in diet, 79
Caustic refining, water-recycle washing, 260
Chain length, average increase in long chain crystalline compounds, 245
Chinese insect wax, anal by GLC, 367
Chlorination, of stearic acid, 278
Chocolate, anal of emulsifiers in, 85
Cholesterol, content in nineteen vegetable oils, 122
—— in milk fat, 178
Cis-trans fatty acids, polymorphism by infrared spectroscopy, 446
Cis-trans unsaturated fatty acids, GLC separation, 68
Citric acid esters, anal, 85
Citrostadienol, of 19 vegetable oils, 300
Clay-heat refining, of edible oils, 251
Cocoa butter, methylsterol and triterpene alcohols of, 300
—— sterols of, 122
Cocoa butter substitutes, from hydrogenated cottonseed stearine, 50, 53
Cocoa butter-like fats, from fractionated cottonseed oil, 50, 53
Coconut oil, hydrolysis by fungal lipase, 64
—— methylsterol and triterpene alcohols of, 300
—— refining by clay-heat process, 251
—— spoilage by fungal lipase, 64
—— sterols of, 122
—— world production, 368A
Cod liver oil, bromine compounds in, 24
—— fatty acid separation using argentation column chromatography, 29
Coffee seed oil, methylsterol and triterpene alcohols of, 300
—— sterols of, 122
—— unsaponifiables, 99
Combars, (soap-detergent bars), manufacture, 475
Computer, for monitoring oil refining, 436
Conjugated acids, hydrogenation and deuteration, 11
Conjugated linoleate, hydrogenation of, 110
Conjugation, of oils using sodium salts of dimethylsulfoxide, 108
Copper, catalyst for hydrogenation, oil stability, 132
—— hydrogenation catalyst containing nickel, 450
Copper-chromite catalyst, deuteration of linoleate, 310
Coriolic acid, GLC anal, 31
Corn, effect of environment on oil content and comp, 540
Corn oil, effect of environment on comp, 540
—— gel permeation chromatography after simulated deep fat frying, 223
—— methylsterol and triterpene alcohols of, 300
—— refining by clay-heat process, 251
Corn soap stock, sterols of, 122
Coronoric acid, GLC anal, 31
Cottonseed, effect of solvent on extraction of cyclopropenoid acids, 72
—— effect of solvent on oil extraction, 72
—— oil extraction with hexane-acetone or hexane-acetone water, 72
Cottonseed dust, removal from cooler exhaust, 504
Cottonseed glanded, oil extraction, 72
Cottonseed glandless, oil extraction, 72
Cottonseed meal, aflatoxin inactivation by ammoniation, 80
—— available lysine of, 304
Cottonseed oil, fractionation to cocoa butter type products, 50, 53
—— inactivation of cyclopropenoid acids, 381
—— methylsterol and triterpene alcohols of, 300
—— sharp-melting fractions from, 129
—— sterols of, 122
—— world production, 368A
Cottonseed salad oil, storage stability, 218
Cottonseed stearine, by solvent winterizing, 50, 53
—— crystallization of, 129
—— triglyceride comp, 50, 53
Cow's milk, origin of lipids, 178
Cows, transfer of polyunsaturated fats into milk, 93
Cows, lactating, ammoniated aflatoxins in diet, 79
Cyclic fatty acids, purification, 44
—— structure by GLC and mass spectra, 44
Cycloartenol, of 19 vegetable oils, 300
Cyclobranol, of 19 vegetable oils, 300
Cycloeucalenol, of 19 vegetable oils, 300
Cyclopropenoid acids, extraction from cottonseed, 72
—— inactivation by fatty acids, 381
—— instability of HBr-toluene solutions, 173
Cyclopropenoids, inactivated with fatty acids, biological studies, 381

D

d_{90}, average increase in chain length of long chain crystalline compounds, 245
Deep fat frying, chemical reactions during, 147
—— with sunflower oil, 440
Densipolic acid, GLC anal, 31
Detergency, soil removal in enzyme-detergent system, 464
Detergency testing, for enzyme-detergent systems, 464
Detergent-enzyme, soil removal by, 464
Detergents, assay for carboxymethylsuccinate, 213
—— automated dtmn of silicates and carbonates, 296
—— biodegradability screening test, 157
—— from fatty acids and starch glycosides, 155
—— glycoside palmitates from lactose, 425
—— in bar soaps, 475
—— properties of N-acylglutamate, 227
—— sulfated tallow alkanolamides, 294
Detergents, soaps, amphoteric combination, 509
Deuteration, of conjugated fatty acids, 11
—— of octadecadienoates, 307, 310
Dicarboxylic acids, average chain length per carbon, 245
Dienes, photooxidation, 325
Diepoxystearic acid, conversion to tetrahydroxy, 524
Diethanolamides, polyurethane foams from, 331
Differential scanning calorimetry, of hexitols used for peanut roasting, 353
5,6-Dihydro-4H-1, 3 oxazines, synthesis, 9
Dimer acids, anal by gel permeation chromatography, 537
Dimeric acids, formation from linoleate during thermal oxidation, 459
Dimers, from trilinolein under deep fat frying conditions, 147
N,N-Dimethylaminopropylamides, synthesis, 509
Dimorphecolic acid, GLC anal, 31
Dimsylsodium, catalytic conjugation of unsaturated oils, 108
Distillation, herring oil methyl esters, 1
Diterpenes, of rosin, 104
Dithiocyanates, by addition of thiocyanogen to olefins, 415
Doughnuts, anal of emulsifiers in, 85
Drying oils, possible use of *Aspergillus terreus* oil, 485
Dust, cottonseed removal from cooler exhaust, 504

E

Edible oils, oxidation inhibition by silicones, 101
—— processing, symposium, 251
—— storage stability of salad oils, 218
—— use of rapeseed oil, 404
—— use of silicones, 101
Egg production, effect of inactivated cyclopropenoid acids, 381
Elaidamide, oxalic acid salts, 126
Elaidic acid, GLC separation from oleic acid, 68
—— polymorphism by infrared spectroscopy, 446
Eleostearic acid, reduction with different hydrogenation catalysts, 11
Emulsifiers, dtmn of HLB, 284
—— for fatty foods, anal review, 85
—— nonionic, gas chromatographic dtmn of HLB, 284
Enzyme-detergent, soil removal by, 464
Enzymes, soil removal in detergent systems, 464
Enzymes, soybean, effect of acid and base on heat inactivation, 137
Epimino derivatives, from β-iodoazides, 290
—— of oleyl alcohol and oleates, 290
Epoxidation, of linoleic acid, 524
Epoxides, acid-catalyzed ring opening, 524
Epoxy acids, GLC anal, 31
—— mass spectrometry, 31
Erucic acid, Canadian rapeseed with low erucic, 395
Esparto wax, anal by GLC, 367
Ester value, of beeswax, 269
Ethoxylated alcohols, biodegradability, 157
Ethoxylated monoglycerides, anal, 85
Ethoxylated octylphenols, precipitation by carboxy vinyl polymers, 276
Ethoxylates, of fatty alcohols, anal by NMR, 249
Extraction of cottonseed, with different solvents, 72

F

Fat, anal of emulsifiers in, 85
Fat, microbial, from *Aspergillus terreus,* 485
Fat composition, of 10 commercial margarines, 372
Fat splitting, for bar soap manufacture, 475
Fats, from animals, future world production prospects, 171A
—— melting point dtmn, review, 115
—— rancidity grading by TBA test, 387
Fats, frying, chemical changes in, 147
Fats, heated, gel permeation chromatography, 223
Fats, polyunsaturated, long term rat feeding studies, 479
Fats and oils, predictions of future supply, 368A
Fatty acid composition, by gas chromatography, 357, 360
Fatty acids, average chain length per carbon, 245
—— changes during soybean maturation, 516
—— chlorination, light catalyzed, 278
—— *cis-trans,* GLC separation, 68
—— collaborative anal, 357
—— effect of operating conditions on GC dtmn of methyl esters, 335
—— electron spin resonance of free radicals of irradiated methyl ester, 171
—— esters of starch glycosides as surfactants, 155
—— GC-MS anal of oxygenated, 31
—— monomeric, cyclic, purification, 44
—— of corn oil, effect of environment, 540
—— of regular and low erucic rapeseed, 395
—— oxygenated, anal by GC, 31
—— polymorphic modifications by infrared spectroscopy, 446
—— recovery from tall oil refinery waste waterr, 494
—— separation on argentation column, 29
—— thermal properties of epoxypropyl esters, 170
Fatty acids, polymerized, anal by gel permeation chromatography, 537
Fatty acids, polyunsaturated, safety in diets, 479
Fatty alcohol ethoxylates, anal by NMR, 249
Fatty alcohols, average chain length per carbon, 245
Fatty amides, oxalic acid salts, 126
Fatty amines, amphoteric surfactants from, 532
—— formation of amphoterics with 1,3-propanesultones, 509
Fatty epoxides, hydration, 524
Fatty esters, of natural waxes, 367
Fatty hydrazides, average chain length per carbon, 245
Fatty ketones, average chain length per carbon, 245
Fish flavor, of autoxidized oils, 334
Fish oils, possibilities for edible use in U.S.A., 220A
Flavor, components of roasted peanuts, 16
Flavor stability, of copper hydrogenated oils, 132
Flavors, of meat, biochemical origin of lipid soluble, 470
Floor finishes, powdering of, 392
Floor waxes, powdering of, 392
Flour, anal of emulsifiers in, 85
Fly ash, removal from stack gas, 504
Foams, polyurethane, from hydroxymethylated diethanolamides, 331
Food emulsifiers, anal, a review, 85
Formylstearic acid, by hydroformylation of oleate, 455
—— catalytic autoxidation, 74
9(10)-Formylstearic acid, polymers as stationary phases in GLC, 235
Fractionation, herring oil methyl esters, 1
France, fat research at Institute des Corps Gras, 4A
Frying, deep fat, chemical changes during, 147
Frying oil, anal by gel permeation chromatography, 223
—— oxidation inhibition by silicones, 101
—— use of silicones, 101

G

Gas chromatography, formylstearic acid polymers as stationary phases, 235
—— of fatty acids using flame ionization detector, 360
—— of fatty acids using thermal conductivity detector, 357
—— of fatty esters, effect of operating conditions, 335
—— of oxygenated fatty acids, 31
Gel permeation chromatography, of polymerized fatty acids, 537
Germination, of soybeans, changes in fatty acid distribution, 282
Glucosinolates, rapeseed with low content, 407
Glycerol, transglycosidation of starch, 155
Glycolipids, soybean, changes during maturation, 516
Glycoside palmitates, from lactose, 425

Glycosides, from starch and polyols, 155
Goat milk triglycerides, structure, 193
Gossypol, NMR spectroscopy of ketol tautomer, 462
—— spectral identification of ketol tautomer, 462
Gramisterol, of 19 vegetable oils, 300
Gum rosin, neutral oils of, 104

H

Halibut oil, bromine compounds in, 24
Hard butters, from fractionated cottonseed oil, 50, 53
Herring oil, bromine compounds in, 24
—— comp, 1
—— polarographic dtmn of oxygen solubility, 429
—— vacuum distillation of methyl esters, 1
Hexitols, roasting of peanuts, 348, 353
—— use for peanut roasting, 353
HLB, gas chromatographic dtmn for nonionic emulsifiers, 284
Hydrazides, average chain length per carbon, 245
Hydrocarbons, average chain length per carbon, 245
—— of natural waxes, 367
Hydroformylation, of oleate with rhodium catalyst, 455
Hydrogen bromide, instability of solution in toluene, 173
Hydrogen sulfide, photochemical addition to methyl oleate and linoleate, 364
Hydrogenated oils, copper hydrogenated, stability, 132
Hydrogenation, application of hydrogenation theory to reactor design, 255
—— batch reactors, 255
—— Buss continuous reactor, 255
—— continuous flow reactors, 255
—— design of commercial reactors, 255
—— large continuous reactor, 255
—— monoenes from conjugated linoleate using platinum, palladium and nickel catalysts, 110
—— of conjugated dienes and trienes, kinetics, 317
—— of conjugated fatty acids, 11
—— of conjugated linoleate, 110
—— of linseed oil with copper catalyst, 132
—— of soybean oil using copper catalyst, 132
—— Pintsch-Bamag continuous reactor, 255
—— Procter and Gamble continuous reactor, 255
—— selectivity using copper-nickel catalysts, 450
—— with copper catalysts containing nickel, 450
Hydrogenation reactors, design factors, 255
Hydrogenators, reactor design, 255
Hydrophile-lipophile balance, HLB, dtmn by gas chromatography, 284
Hydroxy acids, GC anal, 31
—— mass spectrometry, 31
12-Hydroxystearate, NMR shift reagents, structure dtmn, 142

I

Ice cream, anal of emulsifiers in, 85
Icings, anal of emulsifiers in, 85
Infrared spectroscopy, identification of polymorphic modifications of fatty acids, 446
Institut des Corps Gras, research program, 4A
β-Iodoazides, reduction to epimino compounds, 290
Isomers, trans, in soybean oil hydrogenation using copper-nickel catalysts, 450
ITERG, research program, 4A

J

Japan wax, anal by GLC, 367

K

Kapok oil, methylsterol and triterpene alcohols of, 300
—— sterols of, 122
Keto acids, GLC anal, 31
Ketones, as meat flavor components, 470
—— of roasted peanuts, 16
Ketones, fatty, average chain length per carbon, 245
Kraft pulp mills, tall oil soap skimming, 501

L

Lac wax, anal by GLC, 367
Lactic acid esters, anal, 85
Lactylates, anal, 85
Lard, refining by clay-heat process, 251
Laundering, with detergent-enzyme systems, 464
N-Lauroyl glutamates, surfactant properties, 227
Lecithin, analytical methods, 85
—— hydroxylated, anal, 85
Lecithin, soybean, anal by TLC and GLC, 513
Lime soaps, amphoteric dispersing agents, 509
—— sulfated tallow alkanolamides as dispersing agents, 294
Lindlar catalyst, hydrogenation of conjugated fatty acids, 11
Linoleate, autoxidation with coho salmon myosin, 343
—— chemical changes, heating with bleaching clay, 487
—— conjugated, hydrogenation of, 110
—— deuteration with metal catalysts, 307, 310
—— formation of dimeric acids during thermal oxidation, 459
—— non-volatile decomposition products under deep fat frying conditions, 147
Linoleic acid, cyclic acids from, 44
—— development in soybeans, 516
—— epoxidation and conversion to tetrahydroxystearic acids, 524
—— hydrogen sulfide adducts of methyl esters, 364
—— oxidation products, TBA reaction, 387
Linolenate, conjugated, hydrogenation, 11
Linolenic acid, cyclic acids from, 44
Linoleyldistearin, thermal oxidation products, 459
Linseed oil, copper hydrogenated, stability, 132
—— methylsterol and triterpene alcohols of, 300
—— sterols of, 122
—— world production, 368A
Lipase, from *Aspergillus flavus,* 64
—— fungal as coconut oil spoilage agent, 64
Lipid composition, of 10 commercial samples, 372
Lipid oxidation, peroxidase catalysis, 264
Lipids, as meat flavor components, 470
—— of milk, symposium, 175
Lipids, microbial, from *Aspergillus terreus,* 485
Lipids, soybeans, changes during maturation, 516
Lipoproteins, of milk, 186
Lipoxygenase of soybeans, heat inactivation, 137
Liquid-liquid extraction, of BHT from oils, 21
Lysine, available of cottonseed and peanut meals, 304

M

Mackeral oil, bromine compounds in, 24
Mannitol, use with sorbitol for peanut roasting, 348, 353
Margarine, anal of emulsifiers in, 85
—— lipid comp of 10 commercial samples, 372
—— possible use of fish oils, 220A
Marine oils, arsenic, selenium and bromine compounds in, 26
—— bromine compounds in, 24
—— polarographic dtmn of oxygen solubility, 429
—— world production, 368A
Mass spectrometry, in GC anal of fatty acids, 31
Mass spectroscopy, of GLC fractions of cyclic monomeric acids, 44
Meat flavors, biochemical origin, 470
—— lipid-soluble components, 470
Melting point, capillary, of fats, 115
—— microscopic method for fats, 115
—— Wiley, of fats, 115
Melting point of fats, review of methods, 115
9(10)-Mercaptostearate, from hydrogen sulfide addition to oleate, 364
Methanolysis, of rapeseed oil for anal, 230
Methyl esters, electron spin resonance of free radicals of irradiated samples, 171
—— herring oil, fractionation, 1
—— of fatty acids, transesterification of glycosides, 155
—— synthesis using perchloric acid as catalyst, 174
Methyl 12-hydroxystearate, structure by NMR, 142
Methyl ricinoleate, structure by NMR, 142
24-Methylenecycloartenol, of 19 vegetable oils, 300
Methylsterols, of vegetable oils, 300
Microbial fat, from *Aspergillus terreus,* 485
Milk, effect of ammoniated aflatoxins in cows diet, 79
—— polyunsaturated, 186
—— sphingolipids, 186
—— transfer of polyunsaturated fats into, 93
Milk fat, consumption, 175
—— economics, 175
Milk fat globules, origin and structure, 178
Milk fats, triglyceride structure, 193
Milk lipids, comp, 186
—— symposium, 175
Milk lipoprotein, 186
Milk monoenoic acids, isomers, 186
Milk phospholipids, 186
Milk sterols, 186
Milk triglycerides, 186
—— origin, 178
Mold fat, from *Aspergillus terreus,* 485
Monoenoic acids of milk, isomers, 186
Monoglyceride tartarates, anal, 85
Monoglycerides, anal, 85
—— ethoxylated. anal, 85
—— succinylated, anal, 85
Monoglycerides, acylated, anal, 85
Monoterpenes, of rosin, 104
Mustard, oriental, protein comp, 411
Mutton, flavor characterization, 470
Myosin, effect on linoleate oxidation, 343

N

Netherlands, lipid research at Centraal Instituut voor Voedingsonderock, 136A
Nickel, hydrogenation of conjugated fatty acids, 11
Nickel catalyst, deuteration of linoleate, 310
NMR, anal of alkyl ethoxylates, 249
—— structure dtmn using chemical shift reagents, 142
Nonionic emulsifiers, gas chromatographic dtmn of HLB, 284
Nonionic surfactants, biodegradation, 157
—— precipitation by polymer acids, 276
Nonylphenols, biodegradability, 157
Nuts, heat processed in molten hexitols, 348

O

Obtusifoliol, of 19 vegetable oils, 300
cis-9,cis-15-Octadecadienoate, deuteration with nickel catalyst, 307
cis and trans-9-Octadecene, thiocyanogen addition, 415
cis-9-Octadecene, conversion to oxazines, 9
trans-9-Octadecene, conversion to oxazines, 9
Octadecyl octadecanoate, synthesis, 269
Odors, control in tall oil processing, 498
Oil, recovery from tall oil refinery waste waters, 494
Oil refining, computer monitoring, 436
—— water-recycle washing, 260
Oils, acetic anhydride color test, 545
—— chemical changes during bleaching, 487
—— partial hydrogenation theory and reactor design, 255
—— polarographic dtmn of oxygen solubility, 429
—— polymerization with activated earth treatment, 487
—— refining by Zenith process, 260A
—— vegetable, methylsterols of, 300
Oils, drying, possible use of *Aspergillus terreus oil,* 485
Oils, edible, use of silicones, 101
Oleamide, oxalic acid salts, 126
Oleates, chemical changes, heating with bleaching clay, 487
—— epimino derivatives of, 290
—— hydroformylation, 455
Olefins, addition of thiocyanogen, 415
Oleic acid, carboxylation, 39
—— GLC separation from elaidic acid, 68
—— hydrogen sulfide adducts of methyl esters, 364
—— methyl ester, thiocyanogen addition, 415
—— methyl ester conversion to oxazines, 9
—— methyl ester hydroformylation, 455
Oleic acid dimers, anal by gel permeation chromatography, 537
Oleyl alcohol, conversion to oxazines, 9
—— synthesis of epimino derivatives, 290
N-Oleyl glutamates, surfactant properties, 227
Olive oil, methylsterol and triterpene alcohols of, 300
—— polarographic dtmn of oxygen solubility, 429
—— sterols of, 122
Oriental mustard, protein comp, 411
Ouricury wax, anal by GLC, 367
Oxalic acid, salts of fatty amides, 126
Oxazines, from methyl oleate, 9
Oxidation, thermal of linoleyldistearin, 459
Oxidation of lipids, catalysis by peroxidase, 264
Oxidized oils, fishy flavors, 334
Oxirane groups, hydration, 524
Oxygen, Bunsen coefficients in marine oils, 429
—— polarographic dtmn of solubility in marine oils, 429
Oxygen bomb, stability measurement of peanut products, 377
Oxygenated unsaturated acids, anal by GC, 31

P

Palladium, hydrogenation of conjugated fatty acids, 11
Palladium catalyst, deuteration of linoleate, 310
Palladium chloride, complex with triphenylphosphine as catalyst for carboxylation of unsaturated acids, 39
Palm kernel oil, methylsterol and triterpene alcohols of, 300
—— refining by clay-heat process, 251
—— sterols of, 122
Palm oil, comp, 321
—— edible characteristics, 321
—— geographic variation, 321
—— methylsterol and triterpene alcohols of, 300
—— sterols of, 122
—— world production, 368A
N-Palmitoyl glutamates, surfactant properties, 227
Paper processing, tall oil soap skimming, 501
Particulates, removal from air, 504
Pastry, anal of emulsifiers in, 85
Peanut butter, oxidative stability by oxygen bomb method, 377

Peanut meal, amino acids of 16 varieties, 521
—— available lysine of, 304
Peanut oil, color test for adulteration, 545
—— methylsterol and triterpene alcohols of, 300
—— oxidative stability by oxygen bomb method, 377
—— refining by clay-heat process, 251
—— sterols of, 122
—— world production, 368A
Peanuts, aflatoxin anal, 424
—— amino acid contents of 16 varieties, 521
—— flavor components, 16
—— oxidative stability by oxygen bomb method, 377
—— roasted, aldehydes and ketones of, 16
—— roasted in hexitols, anal, 353
—— roasted in hexitols, feeding studies, 348
—— runner, carbonyls of roasted nuts, 16
—— safety roasted in molten hexitol, 348, 353
—— Spanish, carbonyls of roasted nuts, 16
Perchloric acid, as catalyst for fatty acid esterification by methanol, 174
Peroxidase, thermal activation, 264
Phloionolic acid, GLC anal, 31
Phosphatides, of commercial soybean lecithin, 513
Phospholipids, changes during soybean maturation, 516
—— of commercial soybean lecithin, 513
—— of milk, 186
Photooxidation, of soybean oil, 325
Platinum, hydrogenation of conjugated fatty acids, 11
Pollution, control in tall oil processing, 498
Pollution, air, design of abatement systems, 504
Polyacrylic acid, precipitation of nonionic surfactant, 276
Polyethoxylated surfactants, precipitation by carboxy vinyl polymer, 276
Polyethylene glycols, biodegradability, 157
Polyglycerol esters, anal, 85
Polymerization, of linoleyldistearin during thermal oxidation, 459
—— of oleates and linoleates heated with activated earths, 487
Polymerized fatty acids, anal by gel permeation chromatography, 537
Polymers, in heated fats by gel permeation chromatography, 223
Polymorphism, of fatty acids, identification by infrared spectroscopy, 446
Polysorbates, anal, 85
Polyunsaturated acids, in 10 commercial margarines, 372
Polyunsaturated fats, transfer into milk, 93
Polyunsaturated fatty acids, safety in diets, 479
Polyunsaturated oils, catalytic conjugation with sodium salt of dimethyl sulfoxide, 108
Polyurethane foams, from hydroxymethylated diethanolamides, 331
Potassium salts, average chain length per carbon, 245
Potato chips, frying in silicone treated oils, 101
Poultry, skin flavor, studies on, 470
1,3-Propanesultone, amphoterics from lime soap dispersing agents, 509
Propyleneglycol, transglycosidation of starch, 155
Propylene glycol esters, anal, 85
Proteases, soil removal in detergent systems, 464
Proteins, from animals, future world production prospects, 171A
—— of 16 varieties of peanuts, amino acid content, 521
Pulp and paper industry, pollution control in processing crude tall oil, 498
Pulp mills, tall oil soap skimming, 501
Pyrolysis, of triglycerides, 76

Q

Quaternary surfactants, with alkenyl group, synthesis, 59

R

Rancidity, grading by TEA test, 387
Rapeseed, breeding selection for C_{18} unsaturated acids, 400
—— comparison of two varieties, 407
—— effect of environment on fatty acid comp, 395
—— extraction for fatty acid anal, 230
—— fatty acid comp, 395
—— low erucic, genetics and development in Canada, 395
—— low glucosinolate varieties, 407
—— marketing and breeding, symposium, 395
—— quality control, 312A
—— specifications, 312A
Rapeseed, Swedish, chlorophyll content, 312A
Rapeseed meal, amino acid comp, 407
Rapeseed oil, in edible market, 404
—— methylsterol and triterpene alcohols of, 300
—— quality demands for margarine, 312A
—— refining by clay-heat process, 251
—— refining by Zenith process, 260A
—— sterols of, 122
—— world production, 368A
Refined oils, titrimetric dtmn of soap, 207
Refined soybean oil, water washing, 260
Refining, computer monitoring, 436
—— of oils by Zenith process, 260A
—— waste water treatment of tall oil processing, 494
—— water-recycle washing, 260
Refining of oils, by clay-heat process, 251
Reppe carboxylation, of unsaturated acids, 39
Rice bran oil, methylsterol and triterpene alcohols of, 300
—— sterols of, 122
Rhodium, dtmn in supported catalysts, 210
Rhodium hydroformylation catalyst, reactivation, 455
Ricinoleate, NMR shift reagents, structure dtmn, 142
Ricinoleic acid, amides from, 112
—— GLC anal, 31
Roasted peanuts, flavor components, 16
Rosin, composition of neutral oils from, 104

S

Safflower oil, casein coated for prep of polyunsaturated milk, 93
—— high linoleic, methylsterol and triterpene alcohols of, 300
—— high oleic, methylsterol and triterpene alcohols of, 300
—— sterols of, 122
Salad dressing, anal of emulsifiers in, 85
Salad oils, GC estimation of volatiles, 335
—— storage stability, 218
Saponification, in bar soap manufacture, 475
Saturated fatty acids, polymorphic modifications by infrared spectroscopy, 446
—— thermal properties of epoxypropyl esters, 170
Seal oil, refining by clay-heat process, 251
Selectivity, of hydrogenation with copper-nickel catalysts, 450
Selenium compounds, anal in marine oils, 26
Sesame oil, methylsterol and triterpene alcohols of, 300
—— sterols of, 122
Sex odor, of swine, 470
Sheep milk triglycerides, structure, 193
Shortenings, GC estimation of volatiles, 335
—— possible use of fish oils, 220A
Sida acuta, oil comp, 168
Silicates, automated dtmn in detergents, 296
Silicones, in frying oils, pick up by foods, 101
—— mechanism of antioxidant action, 101
—— use in frying oils, 101
β-Sitosterol, content in nineteen vegetable oils, 122
Soap, advances in bar technology, 475
Soap bars, manufacture, 475
Soaps, amphoteric lime soap dispersing agents, 509
—— antimicrobial, 475
—— deodorant, 475
—— in refined oils titrimetric dtmn, 207
—— lime, sulfated tallow alkanolamides as dispersing agents, 294
—— marbleized, 475
—— potassium, average chain length per carbon, 245
—— skimming from black liquor in pulp mill, 501
Solvent extraction, of cottonseed with different solvents, 72
Solvent winterizing, of cottonseed oil, 50, 53
Sorbitan partial esters, anal, 85
Sorbitol, use with mannitol for peanut roasting, 348, 353
Soy flour, flavor components, review, 426A
Soy protein products, effect of steam treatment on flavor, 426A
Soybean, fatty acid distribution during germination, 282
Soybean lecithin, anal by TLC and GLC, 513
—— lipid comp, 513
Soybean lipoxygenase, heat inactivation, 137
Soybean oil, bleaching with activated earth, 421
—— catalytic conjugation with dimsylsodium, 108
—— computer monitoring of refining, 436
—— copper hydrogenated, stability, 132
—— formation of conjugated dienes during earth bleaching, 421
—— from field damaged soybeans, 443
—— hydrogenated-winterized stability, 218
—— hydrogenation with copper catalysts containing nickel, 450
—— methylsterol and triterpene alcohols of, 300
—— photooxidation, 325
—— refined, water washing, 260
—— refining by clay-heat process, 251
—— sterols of, 122
—— world production, 368A
Soybean protein, flavor components, review, 426A
Soybean salad oil, storage stability, 218
Soybean trypsin inhibitor, heat inactivation, 137
Soybean urease, heat inactivation, 137
Soybeans, field damaged, evaluation of oil, 443
—— lipid changes during maturation, 516
Sperm oil, fatty alcohols of, 202
—— triglyceride comp, 202
—— wax ester comp, 202
Sperm whale oil, comp, 202
Sphingolipids, of milk, 186
Stack gas, removal of contaminants, 504
Starch, transglycosidation with polyols, 155
Stearamide, oxalic acid salts, 126
Stearic acid, chlorination, light catalyzed, 278
—— photochlorination, 278
—— tetrahydroxy, synthesis, 524
Stearine, of cottonseed oil, cryatallization to high melting fractions, 129
N-Stearoyl glutamates, surfactant properties, 227
Sterculia foetida oil, inactivation of cyclopropenoid acids, 381
Steroids, identification in swine sex odor, 470
Sterols, comp of nineteen vegetable oils, 122
—— of milk, 186
—— of vegetable oils, 300
Stigmasterol, content in nineteen vegetable oils, 122
Δ^7-Stigmasterol, content in nineteen vegetable oils, 122
Succinylated monoglycerides, anal, 85
Sugar esters, anal, 85
Sugar fatty esters, biodegradability, 157
Sulfate pulp, tall oil soap skimming, 501
Sulfated tallow alkanolamides, as lime soap dispersing agents, 294
Sulfopropylalkylamines, synthesis, 509
Sulfur dioxide, removal from stack gas, 504
Sunflower oil, changes during deep fat frying, 440
—— deep fat frying, 440
—— fatty acid comp from different parts of head, 273
—— methylsterol and triterpene alcohols of, 300
—— partially hydrogenated as frying fat, 440
—— refining by clay-heat process, 251
—— stability as frying fat, 440
—— sterols of, 122
—— variability in sunflower heads and seeds, 529
—— world production, 368A
Sunflowers, variability in oil content in heads and seeds, 529
Surfactants, amphoteric, from alkyl ethylenediamine, 532
—— cationic with alkenyl group, synthesis, 59
—— from fatty acid esters of polyalkoxylated glycosides, 155
—— glycoside palmitates from lactose, 425
—— nonionic, biodegradability, 157
—— nonionic, gas chromatographic dtmn of HLB, 284
—— nonionic, precipitation by polymer acids, 276
—— properties of N-acylglutamate, 227
—— sulfated tallow alkanolamides, 294
Surfactants, soaps, amphoteric combinations, 509
Swine sex odor, characterization, 470
Synthetic detergents, in bar soaps, 475

T

Tall oil, air and water pollution control in processing, 498
—— fractionation, 507
—— refinery waste water treatment, 494
—— symposium, 494
Tall oil fatty acid dimers, anal by gel permeation chromatography, 537
Tall oil processing, waste water recycle, 507
Tall oil rosin, neutral oils of, 104
Tall oil soaps, skimming in pulp mills, 501
Tallow, cocoa butter, substitutes from, 240
—— edible for specialty uses, 240
—— fractionation by acetone, 240
Tallow alcohol ethoxylates, biodegradability, 157
Tallow alkanolamides, sulfated as lime soap dispersing agents, 294
Tartaric esters, of monoglycerides (TEMS) anal, 85
Tetrahydroxystearic acid, synthesis, 524
Thermal decomposition, of triglycerides, 76
Thermal oxidation, of linoleyldistearin, 459
Thiobarbituric acid (TBA), rancidity testing, 387
Thiocyanation, of unsaturated compounds, 415
Thiocyanogen, addition to unsaturated compounds, 415
Thiocyanogen value, mechanism of adduct formation, 415
Thioglucosides, of rapeseed meals, 407
Tocopherol, effect in diets containing unsaturated fats, 479
—— in clay-heat refined oils, 251
Tocopherol content, in 10 commercial margarines, 372
Toilet soaps, advances in technology, 475
Trans fatty acids, in 10 commercial margarines, 372
—— polymorphism by infrared spectroscopy, 446
Triacontyl hexadecanoate, synthesis, 269
Triacontyl triacontanoate, synthesis, 269
Tricaproin, thermal decomposition, 76
Triglycerides, average chain length per carbon, 245
—— changes during soybean maturation, 516
—— hydrogenation theory and reactor design, 255
—— pyrolysis, 76
—— thermal decomposition, 76

Trilinolein, catalytic conjugation with dimsyl-sodium, 108
—— formation of conjugated dienes during earth bleaching, 421
—— non-volatile decomposition products, 147
Trimers, from trilinolein under deep fat frying conditions, 147
Triolein, formation of conjugated dienes during earth bleaching, 421
Trypsin inhibitor of soybeans, heat inactivation, 137

U

Unsaponifiables, content in nineteen vegetable oils, 122
—— of rosin, 104
Unsaturated acids, carboxylation, 39
Unsaturated acids of milk, isomers, 186
Unsaturated fatty acids, polymorphic modification by infrared spectroscopy, 446
Urease of soybeans, heat inactivation, 137
Urethane elastomers, from castor oil, 112

V

Vegetable oils, chemical changes during bleaching, 487
—— methylsterols of, 300
—— sterols of, 122
Vernolic acid, GLC anal, 31

W

Waste water, recycle in tall oil processing, 507
Water, recycle in tall oil processing, 507
Water pollution, control in tall oil processing, 498
Water treatment, from tall oil refinery, 494
Water washing, of refined soybean oil, 260
Wax esters, synthesis, 269
Waxes, commercial, comp, 367
—— commercial comparison by GLC, 367
Waxes, floor, powdering of, 392
Wheat germ oil, methylsterol and triterpene alcohols of, 300
—— sterols of, 122
Winterizing, of cottonseed oil in solvent, 50, 53
Wood rosin, neutral oils of, 104

X—Y—Z

X-ray diffraction, chain length dtmn in crystalline long chain compounds, 245
Zea mays, effect of environment on oil content and comp, 540